ABSTRACT

A pressurized sealing arrangement suited for providing a seal between a valve stem and a valve body is disclosed. The sealing arrangement includes a piston that is restrained in and statically sealed to the valve body and which surrounds the valve stem. Contained within the piston is an annular seal packing that includes two sealing elements spaced apart by a spacer element. The piston includes a face acted upon by a process fluid flowing through the valve body in such a manner that the piston exerts pressure upon a lubricant cavity. The lubricant cavity is in fluid communication with the seal packing such that lubricant contained therein forms a lubricant ring around the stem. Lubricant is also thereby supplied to sealing elements of the packing seal. To prevent contamination of the seal packing, a removable cover is provided that encloses the piston and seal packing.